SUPPLEMENTARY NOTE

Supplemental Analysis

Behavioral results discussed in the manuscript suggest that the twelve participants included in the MRI analysis were affected by the experimental manipulation. This was reflected by participant’s choices (more “share” than “keep” decisions when playing the “good” partner) and self-reported trustworthiness’ ratings. Further, participants made more “share” decisions when playing with the “good” partner rather than the “bad” partner both earlier (first 2 of 8 runs, containing roughly 6 trials per partner) and later (last 2 runs). This data is now plotted in Supplemental Figure S1, showing the percentage of “share” responses for each partner during both early and late task periods.

Additional neuroimaging analysis was also conducted to support the caudate nucleus results described in the manuscript. Specifically, to further investigate the response of the caudate nucleus during the outcome phase, repeated measures ANOVAs were conducted on the percent signal change data for the four main conditions examining interactions between outcome type (positive and negative) and time (the 7 time points comprising the outcome phase, T1-T7). The rationale for this extra, supplementary analysis was to allow post-hoc investigations of specific time-points previously associated with differential activation between positive and negative feedback\textsuperscript{8,10,13,25}. A significant interaction was observed for “lottery” (F(6, 66) = 4.5, p < 0.05), “neutral” (F(6, 60) = 7.54, p < 0.001) and “bad” (F(6, 54) = 3.23, p < 0.05), but showing only a trend for “good” trials (F(6, 66) = 2.66, p = 0.08). In previous studies \textsuperscript{8,10,13,25}, the greatest differential activation to positive and negative monetary outcomes was observed during the 6-9 second time-window following delivery of the feedback. Therefore, post-hoc paired t-tests were conducted using the equivalent time-points in the current design (T4-T5
averaged, corresponding to 5-9 second time-window following delivery of the feedback). Contrasts for each of the four main conditions showed significant differences when comparing positive and negative feedback for the “lottery” trials (t(11) = 4.46, p < 0.001), “neutral” (t(10) = 4.13, p < 0.01), and “bad” (t(9) = 1.83, p < 0.05), but not the “good” partner (t(11) = 1.22, p = n.s.).

Supplemental Experiments & Replication

Although the data presented in the manuscript suggests that the partner bios reliably induced predictions regarding trustworthiness, there is still a concern that a possible asymmetry between the characters was present. To strengthen our results, two separate experiments were conducted. For the first experiment, 12 participants gave informed consent and read the 3 bios used for experimental manipulation. The participants were then explained the rules of the trust game and were asked the following question for each of the 3 partners:

“If another player were to trust Christopher Thompson by sharing, what do you think are the chances that Mr. Thompson would share or keep?”

Participants circled a number between 1 (keep) and 7 (share). The results supported the previous self-ratings results as participants rated the “good” (M= 5.58, SD= 1.61) partner as more likely to share than the “neutral” (M= 4.17, SD= 0.58: t(11) = 4.53, p < 0.001), or “bad” (M= 2.5, SD= 0.91: t(11) = 6.37, p < 0.0001) partners, suggesting that the profile for the character types were successful to induce a moral bias.

A second experiment was conducted using 3 new character profiles, written to depict each partner as morally praiseworthy, suspect or neutral, as the previous bios. A
subset of 13 separate participants that gave informed consent read all 6 bios (attached in the end of Supplement) and rated the partners (on a scale from 1-7) according to trustworthiness, likeability, approachability and the same trust game question depicted above (“keep or share”). Four separate repeated measures ANOVA were conducted investigating any interaction between moral character (good, bad, neutral) and version of bios (old and new). No interactions were found for any of the four questions (trustworthiness: (F(2, 24) = 0.44, p = 0.65), likeability: (F(2, 24) = 1.84, p = 0.18), approachability: (F(2, 24) = 0.39, p = 0.68), trust game: (F(2, 24) = 1.61, p = 0.22)), suggesting that both versions of the bios were similar in perceived moral characteristics.

Using the three new profiles, 13 separate participants gave informed consent and performed a behavioral version of the trust game almost identical to the one conducted in the fMRI scanner. The only differences were the inclusion of three new bios and a decrease in the intertrial-interval of 12 seconds to 3 seconds. As with the original bios, participants in this replication were deeply influenced by the moral bias and the profiles (Supplementary Figure 2). Participants made more “share” than “keep” decisions when playing with the “good” partner (t(12) = 3.29, p < 0.01), but not when playing with the “bad” (t(12) = -1.27, p = n.s.) or “neutral” (t(12) = -0.07, p = n.s.) partners (Sup. Fig. 2a). In addition, when comparing “share” decisions between partners (i.e., “good” vs. “bad”), participants made more “share” decisions overall when playing with the “good” partner rather than the “bad” (t(12) = 3.96, p < 0.01) or “neutral” (t(12) = 2.54, p < 0.05) partners. Just as in the original experiment, early and late scores were compared (Sup. Fig. 2b), showing that participants made more “share” decisions when playing with the “good” partner rather than the “bad” partner both earlier (t(12) = 2.2, p < 0.05) and later (t(12) = 2.5, p < 0.05) during the experiment. Finally, participants gave trustworthiness ratings pre
and post experiment and as before, an interaction between partner & time of rating (F(2, 24) = 7.47, p < 0.005) was found (Sup. Fig. 2c).

The data from Experiment 2, using three different profiles, replicates the original data and further strengthens the idea that biasing participants according to perceived moral characteristics of partners influences decision-making.
Partner Bios

I- “Good” Partner

Christopher Thompson was born on August 14, 1977, in Providence, Rhode Island. After graduating from Mount Pleasant High School in Providence, he entered the University of Notre Dame in the fall of 1994, where he earned a letter in varsity crew before graduating with a bachelor’s degree in English in June of 1998.

He then enrolled in the graduate program in English at the University of Iowa, where he earned his master’s degree in June of 2000. Thompson then spent two years in the Teach for America Program, during which time he taught English to high school sophomores and juniors in Newark, New Jersey.

In September of 2002, Thompson left Iowa City to enroll in the Ph.D. program in English at New York University in Manhattan.

A recent experience, as described in the University of Iowa’s February 28, 2003 Daily Iowan:

Iowa graduate rescues woman in club fire

Former University of Iowa student Christopher Thompson was at the Station Concert Club in West Warwick, Rhode Island when fire broke out on the evening of Feb 20, killing 98 people. While visiting relatives in Providence, he had gone to the club with Tom Battle, a high school classmate, and Battle’s wife, Susan.

Thompson was seated at a table near an exit when the fire started. The Battles, however, were standing among scores of others spectators crowded near the stage, where Great White, a heavy-metal band, had just begun its first set.

After leading several others out of the club to safety, Thompson went back inside in an attempt to locate the Battles. Tom Battle was nowhere in sight, but Thompson quickly spotted Susan Battle lying unconscious on the floor and managed to drag her to safety. In the process, he suffered third-degree burns on his neck, left arm and hand.

Battle, 25, was listed in stable condition Sunday. Thompson, 26, was released from Providence hospital yesterday.
II- “Bad” Partner

Alex Tudor was born on January 2, 1977, in Dallas, Texas. After graduating from Hillcrest High school in north Dallas, he began classes at Baylor University, where he earned a degree in business administration in 1998. During his junior year at Baylor, Tudor served as social committee chairman for the Sigma Nu fraternity.

In September of 1998 Tudor entered the graduate program in business at the University of Nevada at Las Vegas, where he earned his MBA in May, 2000. After vacationing in France and Italy that summer, he served as a financial analyst for Merrill-Lynch in Manhattan from September, 2000 until August, 2001.

In September of 2001, Tudor enrolled in the Ph.D. program in finance at the Stern School of Business at New York University. He resides in midtown Manhattan.

A recent experience, as described in UNLV’s February 5, 2003 Rebel Yell:

**Formal business school student arrested**

Federal prosecutors announced yesterday that UNLV graduate Alex Tudor of New York had been arrested the previous evening on charges of attempting to sell two heat insulating tiles from the space shuttle Columbia on the internet auction site eBay. According to the arrest report, Tudor had been visiting his parents southeast of Tyler when he found the tiles while hiking in a remote area on the day after the disaster.

In defense of his actions, Tudor, 26, told investigators that because many other tiles had already been found and turned over to NASA investigators, he saw no reason to believe that his failure to turn over the particular tiles he found would compromise the agency’s efforts to determine the cause of the accident.

Chief Judge A. Joe Fish of the United States District Court for the Northern District of Texas disagreed. Pending Tudor’s arraignment on felony charges of impeding a federal investigation, Fish ordered Tudor held on $50,000 bail.

Tudor was released last night upon posting bail.
III- “Neutral” Partner

Thomas Sweeney was born on January 12, 1977, in Chicago, Illinois. After graduating from Evanston Township High School in June of 1994, he enrolled at Purdue University in Lafayette, Indiana, the following September. Sweeney earned his bachelor’s degree in mechanical engineering from Purdue in June of 1998.

After graduation, he worked for two years as a staff engineer at the General Motors transmission assembly facility in Toledo, Ohio. In the fall of 2000, he began graduate studies in mechanical engineering at New York University. He now lives in Brooklyn.

A recent experience, as described in Purdue University’s January 10, 2003 Exponent:

Student narrowly misses doomed flight

Former Purdue student Thomas Sweeney, 25, yesterday came within moments of being the twenty-first person killed in the US Airways Express flight that crashed in a fiery explosion shortly after takeoff yesterday morning at Charlotte-Douglas Airport in Charlotte, North Carolina.

Because of unusually heavy rush-hour traffic delays on the morning of January 9, Sweeney arrived at the airport to discover that flight 5481 had pushed back from the gate just seconds earlier. Less fortunate was James Whitaker, 42, of Greenville, South Carolina, the standby passenger who had claimed Sweeney’s seat in his absence.

In a telephone interview, Sweeney appeared shaken by the close call. He expressed sympathy for the families of Whitaker and the other victims, but vowed to continue with his trip. “You can’t control fate,” he explained.

Sweeney graduated from Purdue in 1998 with a B.S. in mechanical engineering.

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**Experiment II**

Ib- “Good” Partner
Robin Garland was born on February 1, 1976 in Topeka, Kansas. In June of 1997, he graduated *magna cum laude* with a degree in history from the University of Kansas in Lawrence, where he was captain of the cross country team his junior and senior years. In September of 1997, he enrolled in the graduate program in history at New York University.

In June of 1999, Garland married the former Amy Olson, also of Topeka, who had been working in the Manhattan office of Doctors Without Borders since graduating from the University of Kansas in June of 1998.

After a two-year year leave of absence from NYU beginning in June, 2000, Garland resumed his studies there in the fall of 2002. He is scheduled to receive his Ph.D. degree in June, 2005, and hopes to enter a career in teaching.

This article from the August 4, 2002 *Topeka Capital-Journal* describes the circumstances that led to Garland’s leave of absence from NYU:

**Accident Update**

Robin Garland, a 1993 graduate of Hayden High School, will return to New York City next month to resume work on his Ph.D. in history at New York University. Garland has been on leave from his studies since the summer of 2000, following a tragic automobile accident in lower Manhattan.

On June 14 of that year, Garland and his wife were headed south on First Avenue when, according to witnesses at the scene, a 1986 Toyota sedan driven by Monisha Sharma ran a red light at the corner of First Avenue and 13th Street. Garland’s car struck the Sharma vehicle broadside, killing her instantly and critically injuring her 9-year-old son, Mohan Sharma.

During the three months of Mohan’s hospitalization following the accident, Garland and his wife formed a close relationship with the boy, whose father had died several years earlier and who had no other relatives in this country. In a ceremony conducted by then New York Mayor Rudolph Giuliani at City Hall, Garland and his wife, Amy, formally adopted Mohan Sharma on August 16, 2000.

During the boy’s convalescence, the Garlands have spent the last two years living in Topeka. After four surgeries, Mohan, now 11, remains confined to a wheel chair, but doctors continue to be optimistic that he will walk again.

“Given all he’d faced, we just couldn’t imagine him shuttling from one foster home to another,” Garland said in response to a question about his and his wife’s decision to adopt the boy.

**IIb- “Bad” Partner**

Alfred Zizzo was born on October 4, 1976, in Orlando, Florida. After graduating from Vanguard High School in Ocala, Florida, in June of 1994, he entered the University of Miami. He also operated a tanning salon in Coral Gables, Florida, during the 1996-97
academic year. In September of 1997, he resumed his studies at the U of M, earning his bachelor of science in marketing in June of 2000.

The following September, he enrolled in the MBA program at Louisiana State University in Baton Rouge. After receiving his MBA there in June of 2002, Zizzo spent the next two years as marketing strategist for the Mezzina/Brown Agency in Manhattan.

In September of 2004, Zizzo enrolled in the Ph.D. program in marketing at Columbia University. He and his wife reside in Scarsdale.

A recent experience, as described in the February 14, 2005 New York Daily News:

**No Parking**

Alfred Zizzo, 28, was arraigned in municipal court yesterday on six counts of selling counterfeit handicap stickers to persons he believed to be Manhattan motorists, but who in fact were undercover New York City police detectives from the 27th precinct. According to prosecutor Daniel Freeman, Zizzo was arrested on February 1st as part of an ongoing sting operation aimed at parking fraud in the city.

At his arraignment, Zizzo said that he had been told by Richard Peavey, the supplier of the counterfeit stickers, that they were not only genuine, but also that the buyers with whom Peavey had put Zizzo in contact were legitimately entitled to them because they had handicapped relatives.

Although admonished by his own attorney to respond only to direct questions posed by the presiding judge, Juanita Bing Newton, Zizzo volunteered his opinion that a small increase in the number of unauthorized stickers would cause no real harm to anyone, because city legislation currently mandates far more handicapped spaces in city parking facilities than are really necessary.

Zizzo, who has no previous criminal record, was released on his own recognizance.
Ronald Thomas Smith was born on March 30, 1977, in Bloomington, Indiana. After graduating from the Aurora Alternative High School in Bloomington in 1995, he entered the University of Indiana, where he earned his bachelor’s degree in chemistry in June of 1999.

After working for two years for Dupont Soy Polymers in St. Louis, Missouri, Smith entered the Ph.D. program in organic chemistry at New York University in September of 2001. He and his wife, Sara, both avid skiers, live on Staten Island.

A recent experience, as described in the February 12, 2005 New York Times:

**Wrong Patient**

Thanks to the timely intervention of Gail Turner, a surgical nurse at Columbia Presbyterian Hospital, New York University student Ronald Thomas Smith still has both of his legs. Smith, 28, had been scheduled for arthroscopic knee surgery yesterday morning to repair cartilage damage sustained in a skiing accident in Vermont last month. The same morning, Smith’s near-namesake, Ronald Trace Smith, 25, of Queens, was scheduled to have his left leg amputated at Columbia Presbyterian to stem the spread of an aggressive osteosarcoma. The near mishap arose when orderlies delivered the Ronald T. Smiths to the wrong operating theaters.

Ms. Turner, 38, a 14-year veteran of the Columbia Presbyterian surgical staff, was to have assisted with the amputation. But because she had spoken with Ronald Trace Smith the previous day, she immediately recognized that surgeons were about to operate on the wrong patient.

Ronald Thomas Smith was immediately rerouted to the correct operating room, where his arthroscopic surgery took place without complication. In a post-operative interview, he told reporters that he had been mistaken for other Ronald Smiths several times before, but never with such nearly disastrous consequences.